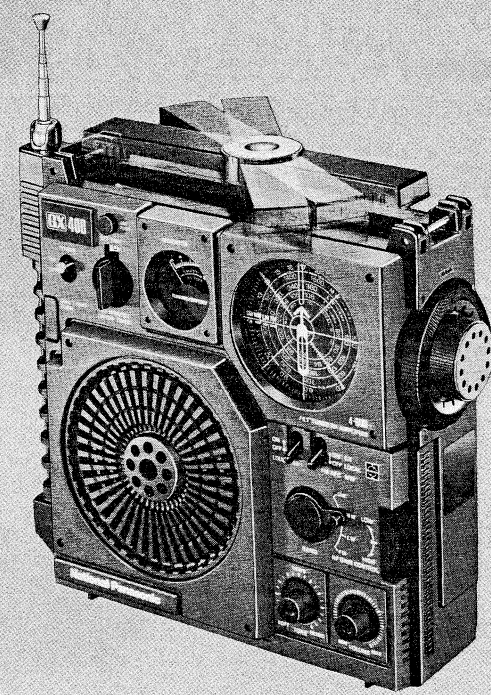
ORDER NO. RD7410-1118

Service Manual

National
RADIO
Panasonic



AC ADAPTOR.....RD-9480B

FM/AM 4-BAND PORTABLE RADIO

MODEL RF-966LB

■ SPECIFICATIONS

Frequency Range:	FM 87.5～108 MHz MW 520～1610 kHz (577～186m) LW 145～400 kHz (2050～760m) SW 5.9～18 MHz (50.8～16.7m)
Intermediate Frequency:	FM 10.7 MHz AM (MW, LW & SW) 455 kHz
Sensitivity:	FM 2μV for 50 mW Output MW 20μV/m for 50 mW Output LW 100μV/m for 50 mW Output SW 3μV for 50 mW Output
Power Output:	3.3W Maximum
Power Source:	Battery: 6V (Four "C" Size Flashlight Batteries) (National UM-2 or equivalent) AC (Using AC Adaptor RD-9480B) 50-60 Hz, 110～125V/220～240V
Speaker:	10 cm (4") PM Dynamic Speaker
Dimensions:	235(Wide) × 213(High) × 78(Deep) mm ($9\frac{1}{4}$" × $8\frac{3}{8}$" × $3\frac{1}{16}$")
Weight:	1.65 kg. (3 lb. 10.2 oz.) without batteries
Impedance:	Speaker.....8Ω Earphone Jack.....8Ω Din Jack Phono .....500kΩ REC OUT 80kΩ

Specification are subject to change without notice for further improvement.

Matsushita Electric Industrial Co.,Ltd.
MATSUSHITA ELECTRIC TRADING CO., LTD.
P.O. Box 288 Central, Osaka, Japan

TO REMOVE CABINET COVER

1. Remove volume, tone and band selector knobs from cabinet.
   (Attach cord to the knob and pull it out forward.)
2. Remove battery cover.
3. Remove four (4) cabinet cover screws, nos. 1~4, as illustrated in fig. 1.
4. Remove cabinet back cover.
5. Unsolder leadwire from speaker yoke.
6. Set power switch to ON position.
7. Remove cabinet front cover.
8. Pull out socket from speaker terminals.
9. To reassemble, reverse the above procedure.

TO REMOVE DIAL DRIVE ASSEMBLY

1. Remove cabinet cover. (Refer to cabinet cover removal instructions.)
2. Remove rubber (CA_{53}), in illustrated in fig. 2.
3. Remove dial drum screw, in illustrated in fig. 3.
4. Remove tuning knob.
5. Remove dial drive assembly screw, no. 2, as illustrated in fig. 6.
6. Remove two (2) dial drive assembly screws, nos. 1 & 2, as illustrated in fig. 7.
7. Remove dial drive assembly.
8. Remove dial scale and back plate screw, no. 1, as illustrated in fig. 6.
9. To reassemble, reverse the above procedure and read the following notes.

   Notes:

   1. When mounting dial drive assembly, turn tuning gang shaft to fully counter-clockwise and tuning shaft to fully clockwise, then insert dial drum (CH_6) to tuning gang shaft.
   2. When mounting dial scale, turn tuning shaft to fully clockwise, then set start points as illustrated in fig. 10.

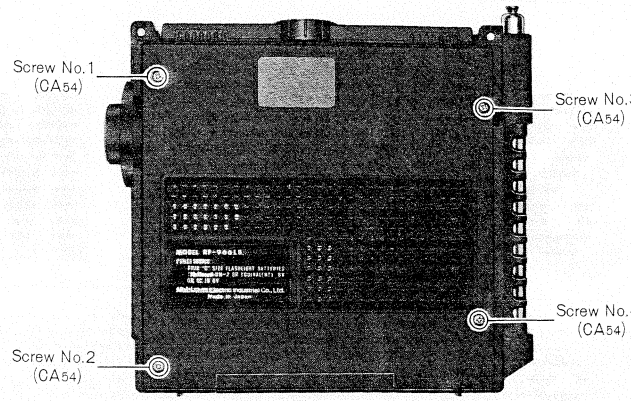


Fig. 1

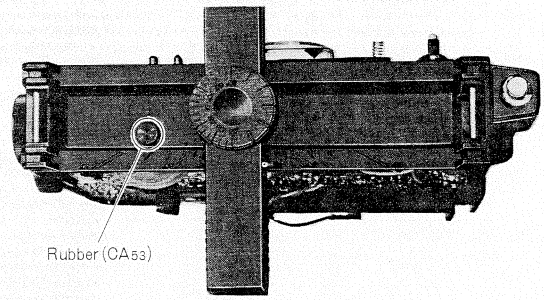


Fig. 2

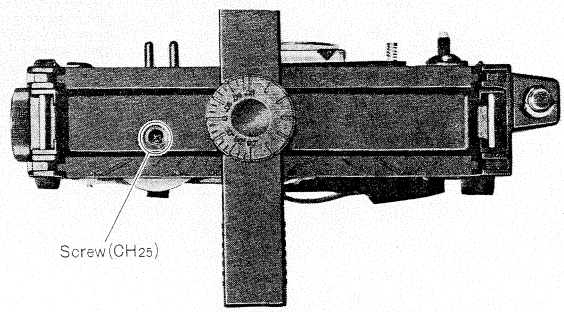


Fig. 3

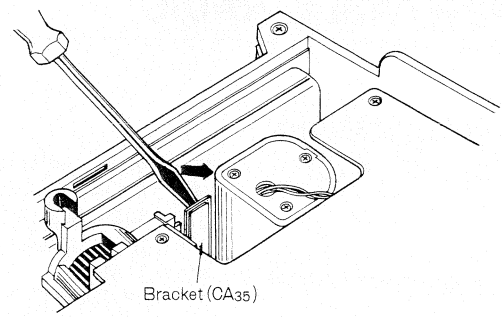


Fig. 4

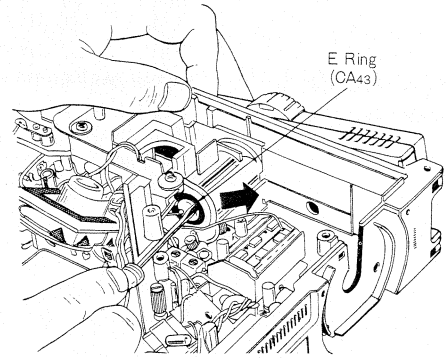


Fig. 5

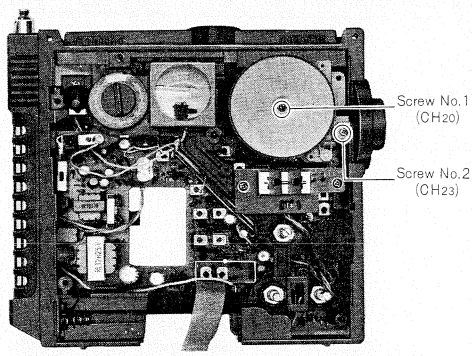


Fig. 6

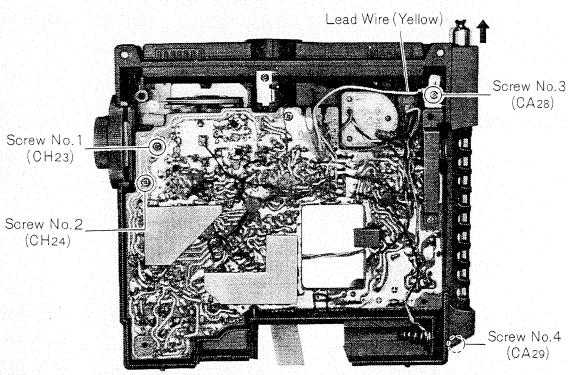


Fig. 7

■ TO REMOVE GYRO ANTENNA CASE

1. Remove cabinet cover. (Refer to cabinet cover removal instructions.)
2. Unsolder four (4) lead wires between core antenna and PC board at PC board side.
3. Remove dial scale and back plate.
4. Remove meter.
5. Remove bracket (CA_{35}) by driver as illustrated in fig. 4.
6. Remove E ring by driver as illustrated in fig. 5.
7. Remove gyro antenna case.
8. To reassemble, reverse the above procedure.

■ TO REMOVE CORE ANTENNA

1. Push the antenna pop-up button.
2. Remove gyro antenna case cover by driver as illustrated in fig. 9.
3. Unsolder three (3) lead wires from PC board.
4. To reassemble, reverse the above procedure and read the following note.

Note: When mounting core antenna to antenna case, wiring three (3) lead wires as illustrated in fig. 8.

■ TO REMOVE WHIP ANTENNA

1. Unsolder lead wire to whip antenna terminal, as illustrated in fig. 7.
2. Remove two (2) whip antenna case screws, nos. 3 & 4, as illustrated in fig. 7.
3. Pull out whip antenna in the direction of arrow, as illustrated in fig. 7.
4. Remove whip antenna from whip antenna case.
5. To reassemble, reverse the above procedure.

■ DIAL CORD INSTALLATION GUIDE

1. Remove dial drive assembly from chassis. (Refer to dial drive assembly removal instructions.)
2. Dial cord length is 90 cm ($35\frac{7}{16}$").
3. Set each drum at the position, as illustrated in fig. 11.
4. Arrows (1～10) indicate correct order and direction of dial cord installation, as illustrated in fig. 11.
5. Cement dial cord ends.

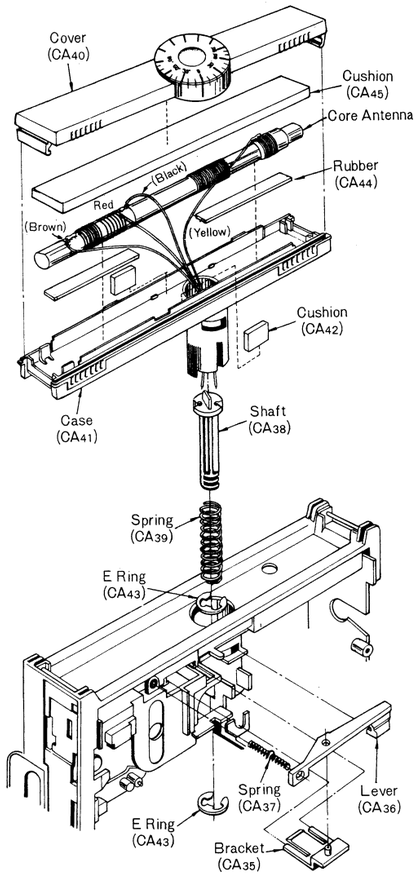


Fig. 8

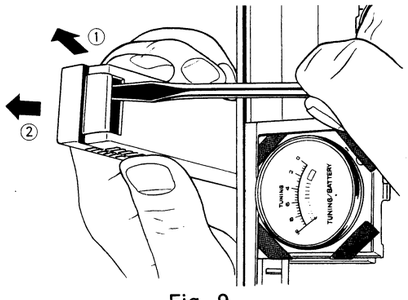


Fig. 9.

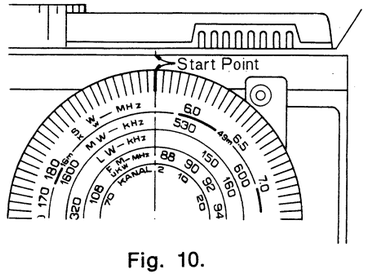


Fig. 10.

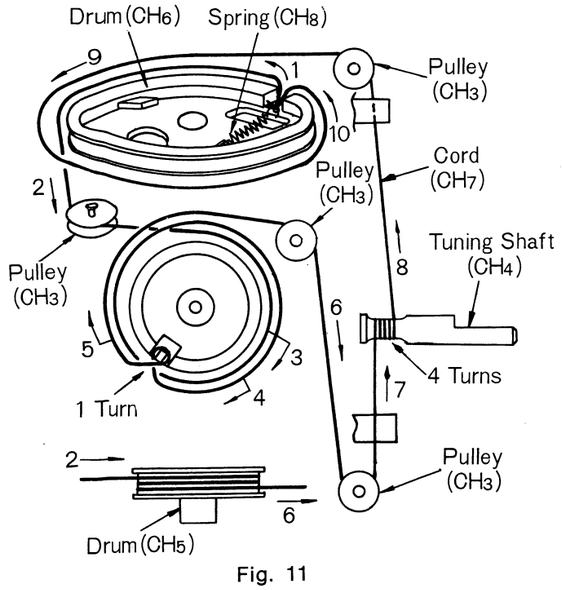
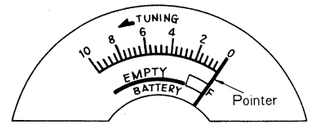


Fig. 11

■ TUNING/BATTERY/REC LEVEL METER ADJUSTMENT

1. RADIO RECEIVER SETTING
   - Set RADIO-PHONO selector switch to RADIO.
   - Set band selector switch to FM.
   - Set volume control to minimum.
   - Set power source voltage to 6 volts DC.
   - Set power switch to ON.
2. REMARKS
   Adjust R_{75} so that the pointer of level meter stays as shown in figure right.



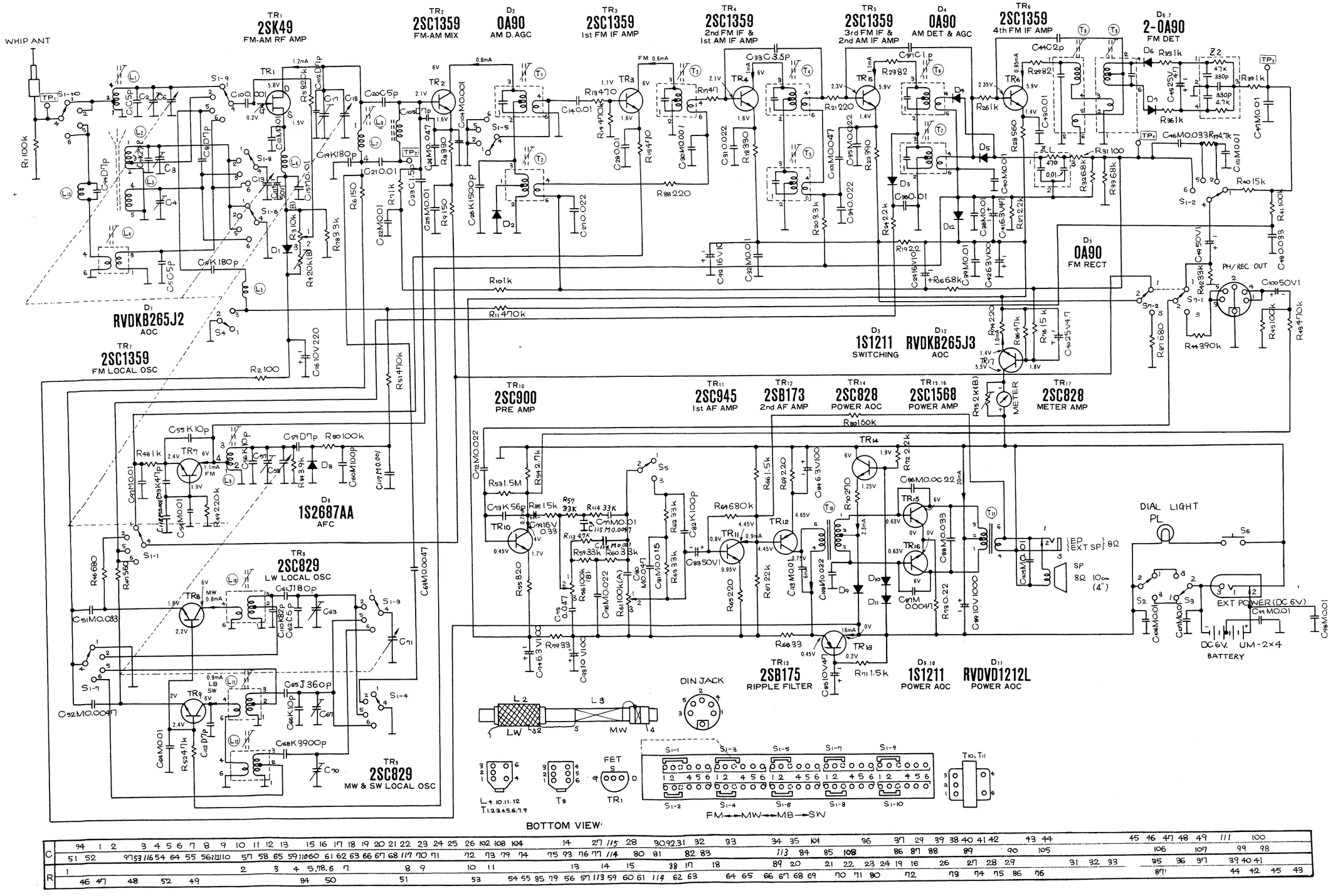
■ ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Notes:
1. Set volume control to maximum.
2. Set tone control to Mumic.
3. Set band selector switch to MW, LW, SW or FM.
4. Set RF gain control to high.
5. Set loudness switch to OFF.
6. Set power switch to ON.
7. Set power source voltage to 6 volts DC.
8. Set RADIO-PHONO selector switch to RADIO.
9. Set AFC/DX-LOCAL switch to ON/DX.

	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING (DISTANCE)	INDICATOR (VTVM or SCOPE)	ADJUSTMENT	REMARKS
	CONNECTIONS	FREQUENCY				
	MW ALIGNMENT					
(1)	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455 kHz 30% Mod. with 400 Hz.	Point of non-interference. (on/about 600 kHz)	Output meter across earphone jack.	T_2 (1st IFT) T_5 (2nd IFT) T_6 (3rd IFT)	Adjust for maximum output.
(2)	〃	550 kHz	550 kHz (Fig. 13)	〃	L_{11} (OSC Coil) (＊1)L_3 (ANT Coil)	Adjust for maximum output. Adjust L_3 by moving coil bobbin along ferrite core.
(3)	〃	1500 kHz	1500 kHz (Fig. 14)	〃	C_{67} (OSC Trimmer) C_4 (ANT Trimmer)	Adjust for maximum output. Repeat steps (2) and (3).
	LW ALIGNMENT					
(4)	〃	145 kHz	145 kHz (Fig. 15)	〃	L_{10} (OSC Coil) (＊1)L_2 (ANT Coil)	Adjust for maximum output. Adjust L_2 by moving coil bobbin along ferrite core.
(5)	〃	325 kHz	325 kHz (Fig. 16)	〃	C_{70} (OSC Trimmer) C_3 (ANT Trimmer)	Adjust for maximum output. Repeat steps (4) and (5).
	(＊1) Cement antenna bobbin with wax after completing alignment.					
	SW ALIGNMENT					
(6)	Connect to test point TP1 through 10 PF capacitor. Common to chassis.	5.9 MHz	5.9 MHz (Fig. 17)	〃	L_{12} (OSC Coil) L_4 (ANT Coil)	Adjust for maximum output.
(7)	〃	18 MHz	18 MHz (Fig. 18)	〃	C_{63} (OSC Trimmer)	Adjust for maximum output. Repeat steps (6) and (7).
	FM-IF ALIGNMENT					
(8)	High side thru. 0.001 μF to point TP2, Common to chassis.	10.7 MHz (400 kHz SWP.)	Point of non-interference. (on/about 90 MHz).	Connect vert. amp. of scope to point TP3, Common to chassis.	T_1 (FM 1st IFT) T_3 (FM 2nd IFT) T_4 (FM 3rd IFT) T_7 (FM 4th IFT) T_8 (FM 5th IFT) (Primary)	Adjust for maximum amplitude and proper linearity between ±100 kHz markers. (Refer to fig. 21)
(9)	〃	〃	〃	〃	T_9 (FM 5th IFT) (Secondary)	Adjust T_9 so that 10.7 MHz marker appears at the center. (Refer to fig. 22)
	FM-RF ALIGNMENT					
(10)	Connect to test point TP1 through FM dummy antenna. (Refer to fig. 23.)	87.2 MHz	Minimum Frequency.	Output meter across earphone jack.	L_9 (FM OSC Coil)	(＊2) Adjust for maximum output.
(11)	〃	90 MHz	90 MHz (Fig. 19)	〃	L_7 (FM DET Coil) L_1 (AM ANT Coil)	(＊2) Adjust for maximum output.
(12)	〃	106 MHz	106 MHz (Fig. 20)	〃	C_{57} (FM OSC Trimmer) C_{17} (FM DET Trimmer) C_2 (FM ANT Trimmer)	(＊2) Adjust for maximum output. Repeat steps (10)～(12).
	(＊2) Three output responses will be present; proper tuning is the center frequency.					

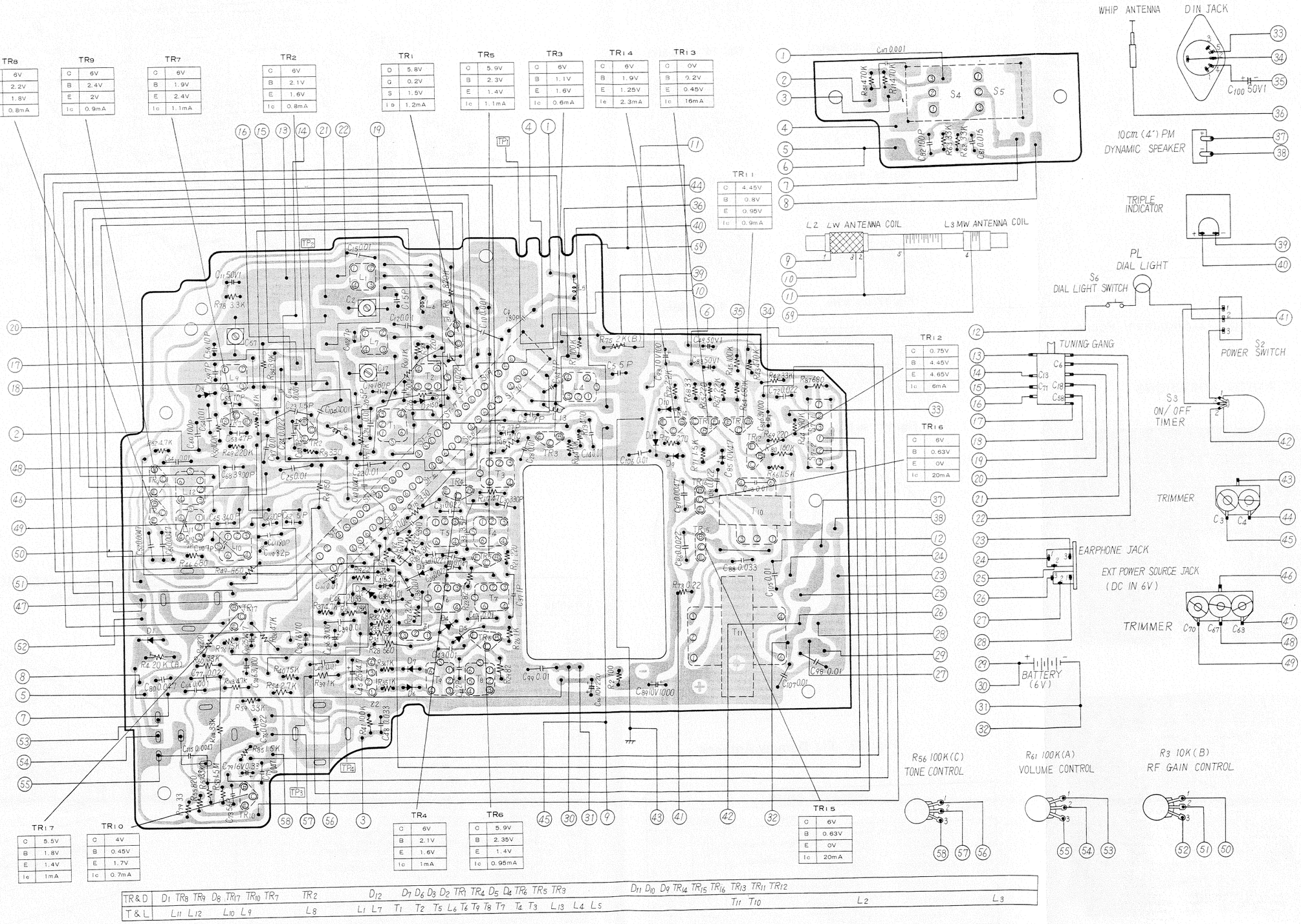
Schematic Diagram – Model RF-966LB



Notes:

1. S_{1-1}~S_{1-10}: Band selector switch in "FM" position.
2. S_2: Power switch in "OFF" position.
3. S_3: Timer switch in "OFF" position.
4. S_4: FM AFC/MW DX-Local selector switch in "AFC ON/DX" position.
5. S_5: Loudness switch in "OFF" position.
6. S_6: Dial light switch in "OFF" position.
7. S_{7-1}~$_{7-2}$: Radio-Phono selector switch in "RADIO" position.
8. DC voltage measurements are taken with circuit tester 10KΩ/V from negative line.
   - TR_1.....Gain control high position
   - TR_7.....FM position • TR_8.....MW position
   - TR_9.....MB position
9. Battery current: No signal 35mA
   Maximum output 600mA

Circuit Board Wiring View–Model RF-966LB



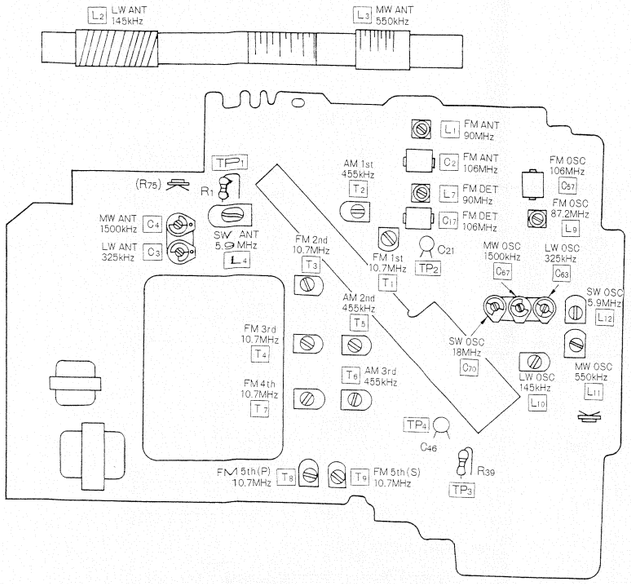
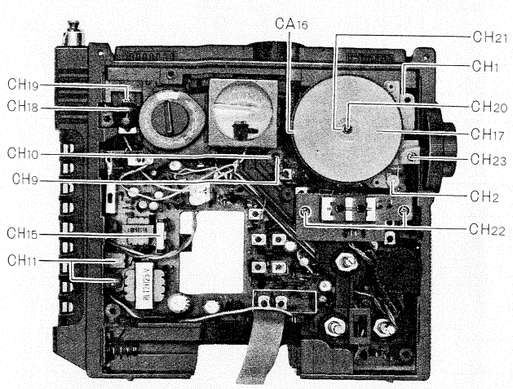
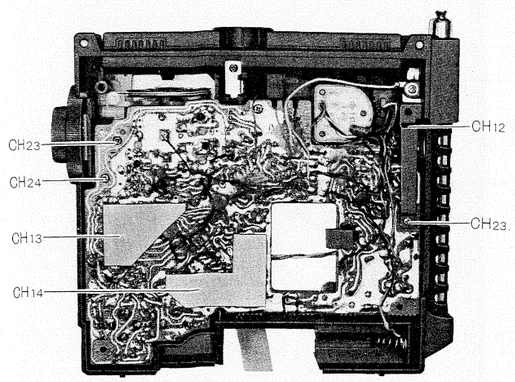


Fig. 12 Alignment Points

■ CHASSIS PARTS LOCATIONS





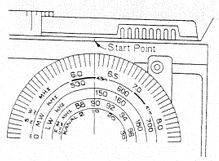


Fig. 13 550 kHz

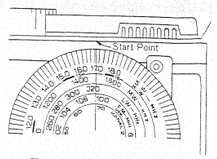


Fig. 14 1500 kHz

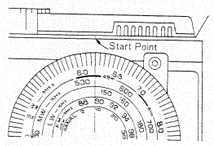


Fig. 15 145 kHz

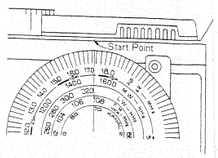


Fig. 16 325 kHz

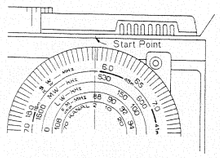


Fig. 17 5.9 MHz

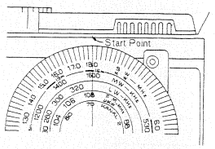


Fig. 18 18 MHz

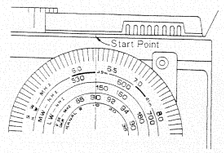


Fig. 19 90 MHz

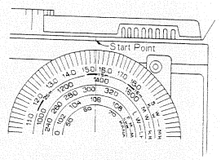


Fig. 20 106 MHz

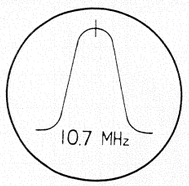


Fig. 21

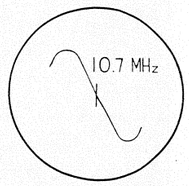


Fig. 22

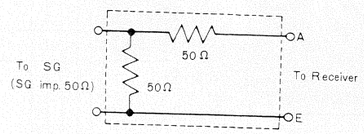
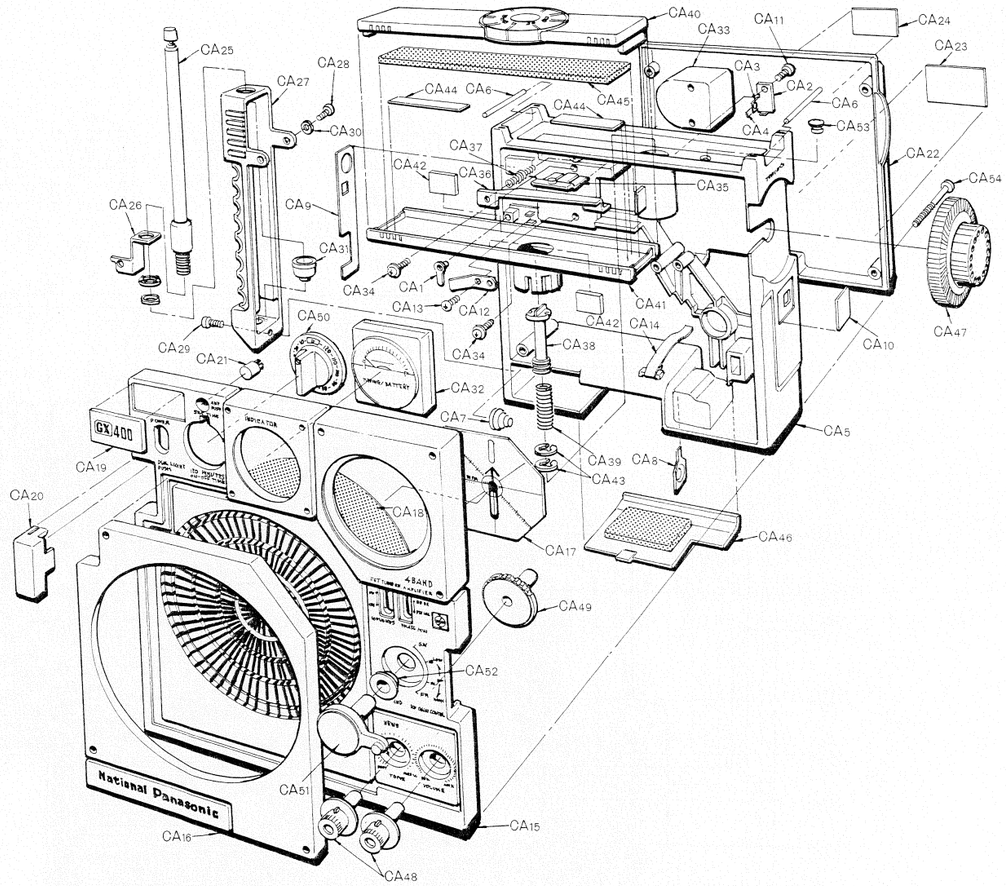


Fig. 23 FM Dummy Antenna

ASSEMBLY PARTS

Ref.No.	Part No.	Description	Per Set (Pcs.)	Remarks
	RYDF966MBXG	Dial Drive Assembly	1	X ○
CH1	RUT10Y	Dial Drive Base (Parts of Assembly, Use RYDF966MBXG)	(1)	
CH2	RDY31A	Shaft, Pulley	(4)	
CH3	RDR21-1	Pulley, Dial	(4)	
CH4	RDT9061Z	Shaft, Tuning	1	Y ○
CH5	RDD9009Z	Drum, Dial(Small)	1	Y ○
	XUC4FW-V	E. Ring, Drum(Small) M'tg	1	Z
	XUC8F5FY	E. Ring, Tuning Shaft M'tg	1	Z
CH6	RDD452A	Drum, Dial(Large)	1	Y ○
CH7	RDZ05A	Cord, Dial(500m)	1 Roll	Y
CH8	RDS4090A	Spring, Dial	1	Y

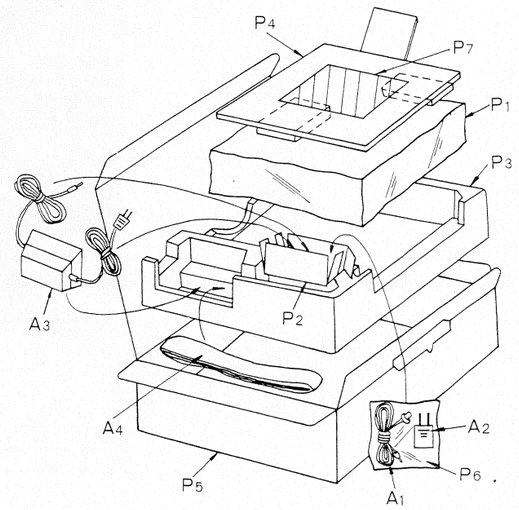
■ CABINET PARTS LOCATIONS



ASSEMBLY PARTS

Ref.No.	Part No.	Description	Per Set (Pcs.)	Remarks
	RYMF966MBXG	Cabinet Body Assembly	1	X ○
CA1	RJT518Z	Terminal, Pilot Lamp (Parts of Assembly, Use RYMF966MBXG)	(1)	
CA2	RUL309Z	Bracket, Stopper	(1)	
CA3	RUL310Z	Washer, Stopper	(1)	
CA4	RHR691Z	Stopper	(1)	
CA5	RKM282Y	Cabinet Body Only	(1)	
CA6	RKT71A	Bracket, Belt	(2)	
CA7	RJC601	Spring, Battery ⊖ Side	2	Y
CA8	RJC206B	Terminal, Battery ⊕ Side	2	Y
CA9	RGK519Z	Indicating Plate, Radio-Phono, EXT. Power Source (DC 6V) & Earphone Mark	1	Z ○
CA10	RGX614Z	Ornament, Cabinet Right	1	Z ○
CA11	XTN3+10B	Screw, Stopper Assembly M'tg	1	Z ○
CA12	RJT732-2	Spring Terminal, Pilot Lamp	1	Z ○
CA13	XTN23+6B	Screw, Dial Light Terminal M'tg	1	Z ○
CA14	RHS17A	Tape, Battery Remove	1	Z ○
	RYF1F966LBXG	Cabinet Front Cover Assembly	1	X ○
CA15	RKF196Y	Front Cover Only (Parts of Assembly, Use RYF1F966LBXG)	(1)	
CA16	RKE115Y	Grille, Cabinet Front	(1)	
CA17	RGP250Y	Panel, Dial	(1)	
CA18	RGS32A	Baffle, Speaker	(1)	
CA19	RGB211Z	Badge, GX400M Mark	1	Z ○
CA20	RBC63Z	Button, Dial Light	1	Y ○
CA21	RBC66A	Button, Gyro Antenna Case Pop-up	1	Y ○
	RYF2F966LBXG	Cabinet Back Cover Assembly	1	X ○
CA22	RKF197Z	Back Cover Only (Parts of Assembly, Use RYF2F966LBXG)	(1)	
CA23	RGT407X	Name Plate	1	Z ○
CA24	RGX615Z	Ornament, Cabinet Back	1	Z ○
	RXEF877N	Stopper Assembly	1	Y ○
CA2	RUL309Z	Bracket, Stopper (Parts of Assembly, Use RXEF877N)	(1)	
CA3	RUL310Z	Washer, Stopper	(1)	
CA4	RHR691Z	Stopper	(1)	

■ ACCESSORIES & PACKING PARTS LOCATIONS



■ REPLACEMENT PARTS LIST

NOTES: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. X—Z rank: **X** rank parts will cover 80% of repair needs. **X+Y** rank parts will cover 95% of repair needs. **Z** rank parts are less necessary.
3. ❹ mark indicated 18 serrations parts.

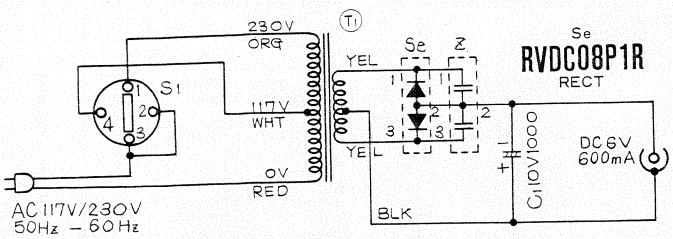
Ref.No.	Part No.	Description	Per Set (Pcs.)	Remarks
TRANSISTORS AND DIODES				
TR1	2SK49	FM & AM RF Amplifier	1	X
TR2,3,4,5,6,7	2SC1359	FM & AM Mixer, AM & FM IF Amplifier, FM Local Oscillator	6	X
TR8,9	2SC829	LW Local Oscillator, MW & SW Local Oscillator	2	X
TR10	2SC900	Pre Amplifier	1	X
TR11	2SC945	1st AF Amplifier	1	X
TR12	2SB173	2nd AF Amplifier	1	X
TR13	2SB175	Ripple Filter	1	X
TR14,17	2SC828	Power Operation Compensator, Meter Amplifier	2	X
TR15,16	2SC1568	Power Amplifier	2	X ○
D1	RVDKB265J2	Operation Compensator	1	X
D2,4,5	0A90	AM D.AGC,AM Detector & AGC,FM Rectifier	3	X
D3,9,10	1S1211	Switching, Power Operation Compensator	3	X
D6,7	2-0A90	FM Detector	1 pair	X
D8	1S2687AA	AFC	1	X
D11	RVDVD1212L	Power Operation Compensator	1	X
D12	RVDKB265J3	Operation Compensator	1	X
COILS AND TRANSFORMERS				
L1	RLA4N10-0	FM Antenna Coil	1	X ○
L2,3	RLF6X3-0	LW & MW Antenna Coil	1	X ○
L4	RLA3M10	SW Antenna Coil	1	X ○
L5	RLQY10G5	Choke Coil	1	Y
L6	RLQY75S5	Choke Coil	1	Y
L7	RLD4N45-0	FM Detector Coil	1	X ○
L8	RLQZ10G1-Y	Choke Coil	1	Y ○
L9	RLO4N73-0	FM Oscillator Coil	1	X ○
L10	RLO1M1	LW Oscillator Coil	1	X ○
L11	RLO2M4	MW Oscillator Coil	1	X
L12	RLO3M14	SW Oscillator Coil	1	X ○
L13	RLQY50S5	Choke Coil	1	Y
T1,3,4	RLI4M301	1st,2nd,3rd FM IF Transformer	3	X
T2	RLI2M203	1st AM IF Transformer	1	X ○
T5	RLI2M204	2nd AM IF Transformer	1	X ○
T6	RLI2M402	3rd AM IF Transformer	1	X
T7	RLI4M302	4th FM IF Transformer	1	X ○
T8	RLI4M501	5th FM IF Transformer, Primary	1	X
T9	RLI4M502	5th FM IF Transformer, Secondary	1	X
T10	RLT3F30-V	Input Transformer, P=700Ω: S=1KΩ	1	X
T11	RLT2H25-V	Output Transformer, P=25Ω: S=8Ω	1	X ○
VARIABLE RESISTORS				
R3	EVH89AF35B14	10KΩ(B), RF Gain Control	1	X ○
R56	EVH1GA003B15	100KΩ(C), Tone Control	1	X ○
R61	EVH2GA003A15	100KΩ(A), Volume Control	1	X ○
R75	EVLT4AA00B23	2KΩ(B), Meter Control	1	X
R4	EVLT4AA00B24	20KΩ(B), RF Gain Current Control	1	X
VARIABLE CAPACITORS				
C6,13,18,58,71	RCVCY51C138	Tuning Gang	1	X ○
C2,17,57	RCVCTY13B19	Trimmer, FM Antenna & Oscillator	3	X ○
C3,4	RCV2T-16M	Trimmer, LW & MW Antenna	1	X
C63,67,70	RCV3T-16M	Trimmer, SW, MW & LW Oscillator	1	X
COMPONENT COMBINATIONS				
Z1	EXAF203Z471R	0.01μF×2, 470Ω	1	X
Z2	EXA5DL04C	330PF×3, 4.7KΩ×2	1	X
SPEAKER				
SP	EAS10P31SG	10cm(4") PM Dynamic Speaker, Imp.8Ω	1	X ○
SWITCHES				
S1-1~S1-10	RSR84ZK-A	Band Selector Switch	1	❹ X ○
S2	RST33ZS-H	Power Switch	1	X ○
S3	RSE40YK-T	Timer, ON/OFF	1	❹ X
S4,5	RST36A-P	Loudness & AFC Switch	1	X ○
S7-1,S7-2	RSS3A	Radio-Phono Selector Switch	1	X
RESISTORS				
R73	ERM12VKR22	0.22Ω, ½Watt, ±10%, Wire	1	Z
R19	ERD18VJ220	22Ω, ⅛Watt, ±5%, Carbon	1	Z
R68,79	ERD18VJ330	33Ω, ⅛Watt, ±5%, Carbon	2	Z
R17	ERD18VJ470	47Ω, ⅛Watt, ±5%, Carbon	1	Z
R23,29	ERD18VJ820	82Ω, ⅛Watt, ±5%, Carbon	2	Z
R2,31	ERD18VJ101	100Ω, ⅛Watt, ±5%, Carbon	2	Z
R21,65,69,74,88	ERD18VJ221	220Ω, ⅛Watt, ±5%, Carbon	5	Z
R70	ERD18VJ271	270Ω, ⅛Watt, ±5%, Carbon	1	Z
R8,18	ERD18VJ331	330Ω, ⅛Watt, ±5%, Carbon	2	Z
R13,15	ERD18VJ471	470Ω, ⅛Watt, ±5%, Carbon	2	Z
R28,47	ERD18VJ561	560Ω, ⅛Watt, ±5%, Carbon	2	Z
R46,87	ERD18VJ681	680Ω, ⅛Watt, ±5%, Carbon	2	Z
R55	ERD18VJ821	820Ω, ⅛Watt, ±5%, Carbon	1	Z
R22	ERD18VJ391	390Ω, ⅛Watt, ±5%, Carbon	1	Z
R7,26,35,36,39,48	ERD18VJ102	1KΩ, ⅛Watt, ±5%, Carbon	6	Z
R66,71,85	ERD18VJ152	1.5KΩ, ⅛Watt, ±5%, Carbon	3	Z
R24,27,72	ERD18VJ222	2.2KΩ, ⅛Watt, ±5%, Carbon	3	Z
R20,78	ERD18VJ332	3.3KΩ, ⅛Watt, ±5%, Carbon	2	Z
R37,52	ERD18VJ472	4.7KΩ, ⅛Watt, ±5%, Carbon	2	Z
R16,32	ERD18VJ682	6.8KΩ, ⅛Watt, ±5%, Carbon	2	Z
R54	ERD18VJ272	2.7KΩ, ⅛Watt, ±5%, Carbon	1	Z
R40,76	ERD18VJ153	15KΩ, ⅛Watt, ±5%, Carbon	2	Z
R67	ERD18VJ223	22KΩ, ⅛Watt, ±5%, Carbon	1	Z
R42,62,63,59,60,57	ERD18VJ333	33KΩ, ⅛Watt, ±5%, Carbon	6	Z
R33	ERD18VJ683	68KΩ, ⅛Watt, ±5%, Carbon	1	Z
R86,113	ERD18VJ473	47KΩ, ⅛Watt, ±5%, Carbon	2	Z
R1,41,45,50	ERD18VJ104	100KΩ, ⅛Watt, ±5%, Carbon	4	Z
R49	ERD18VJ224	220KΩ, ⅛Watt, ±5%, Carbon	1	Z
R44	ERD18VJ394	390KΩ, ⅛Watt, ±5%, Carbon	1	Z
R11,14,43,51	ERD18VJ474	470KΩ, ⅛Watt, ±5%, Carbon	4	Z
R64	ERD18VJ684	680KΩ, ⅛Watt, ±5%, Carbon	1	Z
R53	ERD18VJ155	1.5MΩ, ⅛Watt, ±5%, Carbon	1	Z
R6,9	ERD18TJ151	150Ω, ⅛Watt, ±5%, Carbon	2	Z
R10	ERD18TJ102	1KΩ, ⅛Watt, ±5%, Carbon	1	Z
R84	ERD18TJ392	3.9KΩ, ⅛Watt, ±5%, Carbon	1	Z
R5	ERD18TJ824	820KΩ, ⅛Watt, ±5%, Carbon	1	Z
R80	ERD18VJ154	150KΩ, ⅛Watt, ±5%, Carbon	1	Z
R114	ERD18TJ333	33KΩ, ⅛Watt, ±5%, Carbon	1	Z
CAPACITORS				
C37	ECCD1H010C	1PF, 50WV, ±0.25PF, Ceramic	1	Z
C23	ECCD1H1R5C	1.5PF, 50WV, ±0.25PF, Ceramic	1	Z
C44	ECCD1H020C	2PF, 50WV, ±0.25PF, Ceramic	1	Z
C33	ECCD1H3R5C	3.5PF, 50WV, ±0.25PF, Ceramic	1	Z
C1,5,20,62	ECCD1H050CC	5PF, 50WV, ±0.25PF, Ceramic	4	Z
C8,59,94,112,102,103,	ECCD1H070DC	7PF, 50WV, ±0.5PF, Ceramic	6	Z
C55,56,66	ECCD1H100KC	10PF, 50WV, ±10%, Ceramic	3	Z
C7	ECCD1H270KC	27PF, 50WV, ±10%, Ceramic	1	Z
C53	ECCD1H470KC	47PF, 50WV, ±10%, Ceramic	1	Z
C73	ECCD1H560K	56PF, 50WV, ±10%, Ceramic	1	Z
C82	ECCD1H101K	100PF, 50WV, ±10%, Ceramic	1	Z
C9,19	ECCD1H181K	180PF, 50WV, ±10%, Ceramic	2	Z
C10	ECKD1H102PF	0.001μF, 50WV, $\pm^{100}_{0}$%, Ceramic	1	Z
C14,21,28,36,43	ECKE1H103PF	0.01μF, 50WV, $\pm^{100}_{0}$%, Ceramic	5	Z
C27,31	ECKE1H223PF	0.022μF, 50WV, $\pm^{100}_{0}$%, Ceramic	2	Z
C60	ECKE1H333PF	0.033μF, 50WV, $\pm^{100}_{0}$%, Ceramic	1	Z
C86,77	ECKE1H222MD	0.0022μF, 50WV, ±20%, Ceramic	2	Z
C104,30,114,116,117	ECKE1H102MD	0.001μF, 50WV, ±20%, Ceramic	5	Z
C52,87,69	ECKE1H472MD	0.0047μF, 50WV, ±20%, Ceramic	3	Z
C12,15,22,25,32,38,39,40,47,54,64,97,98,99,105106,107,111,113	ECKE1H103MD	0.01μF, 50WV, ±20%, Ceramic	19	Z
C61	ECMS05181J-H	180PF, 125WV, ±5%, Styrol	1	Z
C26	ECQS05152KZ	1500PF, 50WV, ±10%, Styrol	1	Z
C68	ECQS05392KZ	3900PF, 50WV, ±10%, Styrol	1	Z
C72,76,35,108,34	ECQG05223MZ	0.022μF, 50WV, ±20%, Polyester	5	Z
C46,48,88,51	ECQG05333MZ	0.033μF, 50WV, ±20%, Polyester	4	Z
C80,75,24,101	ECQG05473MZ	0.047μF, 50WV, ±20%, Polyester	4	Z
C79	ECAG16ER33	0.33μF, 16WV, Electrolytic	1	Y
C41	ECEA6V47	47μF, 6.3WV, Electrolytic	1	Y
C74,84,42	ECEA6V100	100μF, 6.3WV, Electrolytic	3	Y
C85	ECEA10V47	47μF, 10WV, Electrolytic	1	Y
C16	ECEA10V220	220μF, 10WV, Electrolytic	1	Y
C89	ECEA10V1000	1000μF, 10WV, Electrolytic	1	Y
C29,92	ECEA16V10	10μF, 16WV, Electrolytic	2	Y
C45,90	ECEA25V4R7	4.7μF, 25WV, Electrolytic	2	Y
C11,49,83,100	ECEA50V1	1μF, 50WV, Electrolytic	4	Y
C81	ECQG05153MZ	0.015μF, 50WV, ±10%, Polyester	1	Z
C93	ECEA10V100	100μF, 10WV, Electrolytic	1	Y
C110	ECMS05820K-H		1	
C65	ECQS1361JZ	360PF, 125WV, ±5%, Styrol	1	Z
C115	ECQG05472MZ	0.0047μF, 50WV, ±20%, Polyester	1	Z
CABINET				
	RYMF966MBXG	Cabinet Body Assembly	1	X ○
CA7	RJC601	Spring, Battery ⊖ Side	2	Y
CA8	RJC206B	Terminal, Battery ⊕ Side	2	Y
CA9	RGK519Z	Indicating Plate; Radio-Phono, EXT. Power Source,(DC 6V) & Earphone Mark	1	Z ○
CA10	RGX614Z	Ornament, Cabinet Right	1	Z ○
CA11	XTN3+10B	Screw, Stopper Assembly M'tg	1	Z
CA12	RJT732-2	Spring Terminal, Pilot Lamp	1	Z ○
CA13	XTN23+6B	Screw, Dial Light Terminal M'tg	1	Z
CA14	RHS17A	Tape, Battery Remove	1	Z ○
	RYF1F966MBXG	Cabinet Front Cover Assembly	1	X ○
CA19	RGB212Z	Badge, GX400 Mark	1	Z ○
CA20	RBC63Z	Button, Dial Light	1	Y ○
CA21	RBC66A	Button, Gryo Antenna Case Pop-up	1	Y ○
	RYF2F966MBXG	Cabinet Back Cover Assembly	1	X ○
CA23	RGT407X	Name Plate	1	Z ○
CA24	RGX615Z	Ornament, Cabinet Back	1	Z ○
	RXEF877N	Stopper Assembly	1	X ○
CA25	XEART196FBY	Whip Antenna	1	X ○
CA26	RMA110A	Bracket, Whip Antenna	1	Z ○
CA27	RKE116A	Case, Whip Antenna	1	Y ○
CA28	XTN3+12B	Screw, Whip Antenna M'tg	1	Z
CA29	XTN3+10BFZ	Screw, Whip Antenna Case M'tg	1	Z
CA30	XWG3	Washer, Whip Antenna M'tg	1	Z

Ref.No.	Part No.	Description	Per Set (Pcs.)	Remarks
:A31	RHG968A	Rubber, Whip Antenna	1	Z ○
:A32	RSM2605B-W	Meter, Triple Indicator	1	X ○
:A33	RSE40YK-T	Timer, ON/OFF	1	❂ X
:A34	XTW3+8E	Screw, Timer M'tg	2	Z
:A35	RUB77A	Bracket, Antenna Drive Lever	1	Y ○
:A36	RUB79A	Lever, Antenna Drive	1	Y ○
:A37	RDS9230A	Spring, Antenna Drive	1	Y ○
:A38	RUB88Z	Shaft, Gyro Antenna Case	1	Z ○
:A39	RDS5390A	Spring, Gyro Antenna Case	1	Y
:A40	RKE117Z	Cover, Gyro Antenna Case	1	Y ○
:A41	RKE118Z	Case, Core Antenna	1	Y ○
:A42	RHR731Z	Cushion, Core Antenna	2	Z
:A43	XUC8FW	E Ring, Gyro Antenna Case & Shaft M'tg	2	Z ○
:A44	RHG685Z	Rubber, Core Antenna	2	Z ○
:A45	RHR649Z	Cushion, Core Antenna	1	Z ○
:A46	RKK79A	Battery Cover	1	X ○
:A47	RBN239A	Knob, Tuning	1	X ○
:A48	RBN240A	Knob, Tone & Volume	2	X ○
:A49	RBN241A	Knob, RF Gain Control	1	X ○
:A50	RBN242AK	Knob, Timer	1	❂ X ○
:A51	RBS71AK	Knob, Band Selector	1	❂ X ○
:A52	RHR110-1	Spacer, Band Selector Knob	1	Z ○
:A53	RHG975Z	Rubber, Cabinet Upper Side	1	Z ○
:A54	XTB3+60BFN	Screw, Cabinet Cover M'tg	4	Z
		CHASSIS		
	RYDF966MBXG	Dial Drive Assembly	1	X ○
:H4	RDT9061Z	Shaft, Tuning	1	Y ○
:H5	RDD9009Y	Drum, Dial(Small)	1	Y ○
	XUC4FW-V	E Ring, Drum(Small) M'tg	1	Z
	XUCR5FY	E Ring, Tuning Shaft M'tg	1	Z
:H6	RDD452A	Drum, Dial(Large)	1	Y ○
:H7	RDZ05A	Cord, Dial (500m)	1 Roll	Y
:H8	RDS4090A	Spring, Dial	1	Y
:H9(PL)	XAMR96T150	Pilot Lamp, Indicator & Dial Light	1	X ○
:H10	RHG211	Rubber, Pilot Lamp	1	Z
:H11	RJJ85A-C	Jack, EXT. Power Source (DC 6V) & Earphone	1	Y ○
	RJS17A-X	Connecting Socket, Speaker	2	Z
	RUV283	Cover, Radio-Phono Selector Switch	1	Z
	RJS75Z-H	Din Jack, Phono & Rec. Out	1	Y

Ref.No.	Part No.	Description	Per Set (Pcs.)	Remarks
:H12	RMK70Z	Bracket, Din Jack	1	Z ○
:H13	RMC225A	Shield Cover, P.C. Board	1	Z ○
:H14	RMC318Z	Shield Cover, P.C. Board	1	Z ○
:H15	RMY75Z	Heat Sink, Transistors (TR15,16)	1	Z
:H16	RDH88Z	Dial Back Plate	1	Z ○
:H17	RKD272X	Scale, Dial	1	Y ○
:H18	RHG703A	Rubber Cover, Power Switch	1	Z
:H19	XYN3+C8S	Screw, Power Switch M'tg	1	Z
:H20	XTN26+8BFZ	Screw, Scale M'tg	1	Z ○
:H21	XWG23X6FZ	Washer, Scale M'tg	1	Z ○
	RMC244Z	Earth Terminal, Speaker	1	Z ○
:H22	XTW3+10E	Screw, Loudness & AFC Switch M'tg	2	Z
:H23	XTN3+10B	Screw, Dial Drive Assembly & Din Jack Bracket M'tg	3	Z
:H24	XTN3+12B	Screw, Dial Drive Assembly M'tg	1	Z
:H25	XYN26+C6	Screw, Drum (Large) M'tg	1	Z
		ACCESSORIES		
A1	XEH1A1	Magnetic Earphone	1	Y
A3	RD-9480B	AC Adaptor SAFETY	1	Y ○
A4	RQC9010Z	Belt	1	Y ○
		PACKING		
P1	RPP117A	Polyethylene Cover	1	Z
P2	RPE181Z	Cover, AC Adaptor	1	Z
P3	RPN1783Z	Pad, Lower Side	1	Z ○
P4	RPN1787Z	Pad, Upper Side	1	Z ○
P5	RPK321Z	Gift Box	1	Y ○
P6	RPF9Z	Polyethylene Cover (Earphone & Plug)	1	Z
P7	RQX5702Z	Instruction Book	1	Y ○

AC ADAPTOR-MODEL RD-9480B

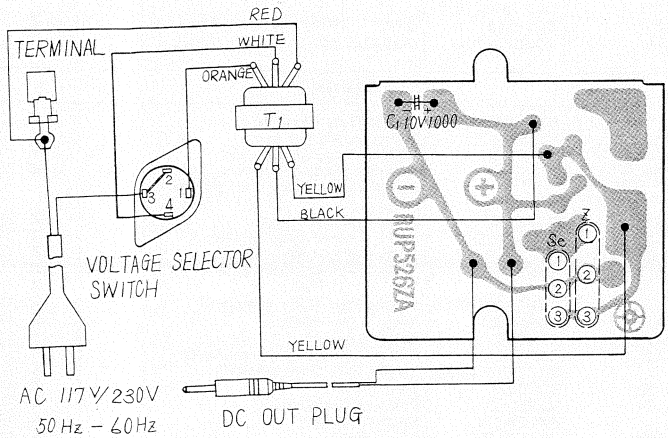
■ SCHEMATIC DIAGRAM



Note:

1. S_1: Voltage selector switch "230V" position.

■ CIRCUIT BOARD WIRING VIEW



■ REPLACEMENT PARTS LIST

Ref.No.	Part No.	Description	Per Set (Pcs.)	Remarks
		RECTIFIER		
Se	RVDC08P1R	Rectifier SAFETY	1	X
		TRANSFORMER		
T1	RLT5J151-W	Power Transformer SAFETY	1	X ○
		COMPONENT COMBINATION		
Z	RXAF103P22HD	0.01μF×2	1	Y
		SWITCH		
S1	RSR12A	Voltage Selector Switch SAFETY	1	X
		CAPACITOR		
C1	ECEA10V1000	1000μF, 10WV, Electrolytic	1	Y
		CABINET		
	RKM333Z	Cabinet Body Only	1	X ○
	RKF241Z	Cabinet Back Cover	1	X ○
	RGT402Z	Name Plate	1	Y ○
	XTB3+12BFN	Screw, Cabinet Back Cover M'tg	2	Z
		CHASSIS		
	RJA40Z-K	AC Cord, Power Source SAFETY	1	Y ○
	RJP96Z	DC OUT Plug with Cord	1	Y ○
	RJR18B	Lead Holder	1	Z
	RHR104B	Grommet (Rubber), AC Cord SAFETY	1	Z
	RHR550A	Grommet (Plastic), AC Cord SAFETY	1	Z
	XTN23+8B	Screw, Voltage Selector Switch M'tg	1	Z

Note: SAFETY Indicated that only parts specified by the manufacturer be used for replacement in critical circuits.

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